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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CRANE, DANIEL C

ART UNIT PAPER NUMBER

3725

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/516,316

Applicant(s)

TOMITA, KAZUO

Examiner

Daniel C. Crane

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8, 9 and 11-14 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

REJECTION OF CLAIMS OVER PRIOR ART

Claims 11 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Hodge (2,017,247). See Figure 2 where the die base 13 supports a die body 11 with die tips 7 of different sizes. Furthermore, the die tips 7 comprise one forming die tip 7 that can be detachably and exchangeably mounted to the die body. Additional "sub die tips" 7 are provided that are of a smaller size that can be detachably and exchangeably attached to the die body. Similarly, a die base 26 is provided with a die body 24 supported thereon and having a "forming die tip" 8 and a "sub die tip" 8 of a smaller configuration than the "forming die tip". All the die tips 8 can be detachably and exchangeably attached to the die body 26.

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dieterich (1,449,385) in view of Endo (JP 3-189021). Dieterich shows "clamping" punch tips 16 of a shorter length than "forming" punch tips 15 but does not show that the punch body 12 fits slidably within a cylindrical punch guide. Such is shown by Endo at 11 where the punch bodies 19A or 19B of cylindrical configuration can reciprocate within cylindrical guides 11A, (11AB) or 11B, (11BG). Accordingly, it would have been obvious to the skilled artisan at the time of the invention to have modified Dieterich's punch by fitting the punch body 12 slidably within a cylindrical guide as taught by Endo at 11 so as to facilitate detachable arrangement of the elements (see first sentence of the CONSTITUTION of the English Abstract).

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuji (6,606,926) in view of Endo (JP 3-189021). Tsuji illustrates the claimed punch press tool 10

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where punch “forming” tips 16, 17 have different lengths from punch “clamping” tips 16, 17 (see Figures 1, 2 or 3). The tips are disclosed as being inserted into holes of punch plate 12 forming the punch body 12, 20. The stripper is shown at 15. A cylindrical punch guide is not shown, however, such is common in the punch art. Endo shows this to be known at 11 and discussed in the preceding paragraph. Therefore, it would have been obvious to the skilled artisan at the time of the invention to have modified Tsuji’s punch plate by configuring the plate as a cylinder so as to facilitate guided linear motion within the punch resulting in ease of exchange and replacement using the concepts taught by Endo.

Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daniels (1,402,284) in view of Endo (JP 3-189021). Daniels illustrates a punch press tool with “forming” punch tips 5, 7 and “clamping” punch tips 4, 6 that are shorter than the forming punch tips. While Daniels does not show that the body 1 is slidably supported in a punch body, this is clearly a well-known feature in the punch art. In this regard, it is widely known to use a ram to reciprocate the sliding body in a punch press. Accordingly, it would have been obvious to the skilled artisan to have operated the sliding body 1 within a punch holder so as to facilitate reciprocation of the sliding body as well known in the art, such known holder being shown by Endo at 11.

RESPONSIVE TO APPLICANT’S COMMENTS

Applicant’s comments have been carefully considered. It appears that applicant has given the limitation in the claims drawn to the “punch tip” or “die tip” as a distinct element

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construction separate from the punch element as a whole. The examiner has given the claims their broadest reasonably interpretation and it is maintained that a “punch tip” or “die tip” is readable on any element within the punch or die that constitutes that portion of the punch that is assembled to the punch or die and is the working element as a whole of the tool. Accordingly, Hodge’s punches 7 and dies 8 constitute “punch tips” since they form the forming elements of the punches 13 and dies 26, respectively, and are mounted to the punch 13 or die 26. Similarly, “punch tips” 15 form the tools of the punches 12 in Dieterich. As to Tsuji, the “punch tips” 16, 17 are the “tip” of the punch 12, 20 because they are the active members of the punch 12, 20 and therefore, constitute the “punch tips”. As to the Daniels’ teaching, each “punch tip” can be defined as tool element 4, 14 or tool element 5, 15 or tool element 6, 16 or tool element 7, 17. Focusing on the “tip” as only one section of the punch element or die element is a narrow reading of the language.

With respect to the applicability of Hodges against claims 11 and 12, the rejection is considered proper because the label given to each of the tips, i.e., “forming die” and “sub die”, is not a structurally definitive provision that distinguishes over Hodge’s tips. In this regard, the shaping tools shown at either 7 or 8 are dies and they are constituted of “tips” because the terminal ends or tips of the dies cooperate with opposing dies. Furthermore, the dies 8 are “tips” because the die tips 8 forms only a part of the die opening that extends through the die body 26. Alternatively, the “die tip” constitutes that part of the die that is the working part of the die body.

With reference to the rejection of claims 8 and 9 as Dieterich and Endo apply thereto, it is the examiner’s position that Dieterich does show forming punch tips 15 and clamping tips 16 of different lengths in that the extensions 18, which form an integral assembled part of the forming

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punch tips 15 result in a longer length for the forming punch tips. Applicant further argues that Dieterich does not show the cylindrical punch guide, however, the rejection is based upon a combination with Endo and applicant fails to point out how Endo is not applicable. Clearly, Endo does show that cylindrical punch guides are common in the art and the CONSTITUTION of the English Abstract make it plain that such a construction results in easy exchangeability. Applicant has not pointed out how Endo's punch body 11, which has a cylindrical guide for the forming punch 19A or 19B, does not remedy the missing features of Dieterich.

Applicant's comments relative to claims 8 and 9 and the applicability of Tsuji and Endo have been considered. Tsuji shows a plurality of punch tips 16, 17 that can be removably and replaceably mounted to the punch body 12, 20. The label given to each of the tips, whether a "clamping punch tip" or a "forming punch tip" is not a functionally definitive feature and is merely that, a label. It is this reasoning that can be used to read the claimed features on the Tsuji teaching. Thus, the shorter punch tip 16, 17 can be labeled the "forming punch tip" or the "clamping punch tip". The longer punch tip 16, 17 can be labeled the remaining "forming punch tip" or the "clamping punch tip". Extension 17 is a part of the tip and, thus, establishes the "forming punch tip" or "clamping punch tip" with the shaping end 16. Therefore, the tip constitutes the length 16, 17 and these "tip" lengths vary. As to the Endo teaching in conjunction with Tsuji, this is considered proper. The mount of the punch body within the punching apparatus is not shown but it is the examiner's position that this arrangement is obvious for the motivation taught by Endo where a cylindrical punch guide allows for ease of replacement (see the English Abstract).

Daniels and Endo are also considered properly applied against claims 13 and 14. The "punch tips" constitute those elements 4, 14 and 5, 15 and 6, 16 and 7, 17. The lengths of each "punch tip" 4, 14 and 5, 15 and 6, 16 and 7, 17 have different lengths and whether one punch tip constitutes a "clamping punch tip" is a matter of labeling. While Daniels' sliding body 1 is slidably arranged on guides 13, it is the examiner's position that arranging the sliding body "within a punch holder" similar to Endo, where the body 19A or 19B can be slidably mounted "within a punch holder" 11 would have been obvious to the skilled artisan for the noted

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motivation set out in the English Abstract. Applicant has not addressed the rejection in terms of the combined teachings of Daniels and Endo against the claims.

INDICATION OF ALLOWABLE SUBJECT MATTER

Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

FINAL OFFICE ACTION

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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INQUIRIES

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner D. Crane whose telephone number is **(571) 272-4516**.

The examiner's office hours are 6:30AM-5:00PM, Tuesday through Friday.

Documents related to the instant application may be submitted by facsimile transmission at all times to Fax number (571) 273-8300. Applicant(s) is(are) reminded to clearly mark any transmission as "DRAFT" if it is not to be considered as an official response. The Examiner's Fax number is **(571) 273-4516**.

DCCrane
October 29, 2006



Daniel C. Crane
Primary Patent Examiner
Group Art Unit 3725